

CLAIMS

1. Hinged assembly (1) formed of at least two adjacent panels (4-7) of a solar generator hinged in pairs to pivot from a stacking configuration, in which the panels are stacked one on the other, to an unstacking or
5 deployed configuration, in which the panels are disposed substantially in the same plane, the two panels being connected together by at least one hinge,
characterized in that said hinge is formed exclusively of a Carpentier leaf spring joint (11) having the dual function of:
10 - in the stacking configuration and in the deployment phase, generating a continuous driving torque tending to move the panels toward the unstacking configuration, and
 - in the unstacking configuration, mechanically retaining the panels in that configuration,
15 and in that said Carpentier leaf spring joint extends under the panels that it connects to form the support structure thereof.
2. Assembly according to claim 1, characterized in that the plurality of Carpentier leaf spring joints forming the connection between two adjacent panels provides a crossed succession of Carpentier leaf spring
20 joints (11, 11') to generate opposite driving torques upon folding the two adjacent panels.
3. Assembly according to either claim 1 or claim 2, characterized in that power current is routed between panels by a wiring harness using a material having the same mechanical properties as a Carpentier leaf
25 spring joint.
4. Assembly according to any one of claims 1 to 3, characterized in that the vehicle includes pallets (8) for retaining the panels in the stacking configuration and in that, in the stacked configuration, said pallets lie in planes parallel to those of the panels, each pallet being connected to a
30 fixed structure of the vehicle by at least one second Carpentier leaf spring joint (10) adapted to exert a drive torque tending to move the pallets out of the panel deployment space.
5. Assembly according to claim 4, characterized in that the geometry and the area of the pallets is chosen so that, when in the stacked
35 configuration, the pallets cover only part of the surface of the upper

panel.

6. Space vehicle, in particular satellite, characterized in that it includes a hinged assembly according to any one of claims 1 to 5.